

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TQ DELTA, LLC,
Plaintiff,

V.

COMMSCOPE HOLDING COMPANY,
INC., COMMSCOPE INC., ARRIS US
HOLDINGS, INC., ARRIS SOLUTIONS,
INC., ARRIS TECHNOLOGY, INC., and
ARRIS ENTERPRISES, LLC,
Defendants.

[illegible]

JURY TRIAL DEMANDED

Civil Action 2:21-cv-310-JRG
(Lead Case)

**PLAINTIFF TQ DELTA'S REPLY BRIEF IN SUPPORT OF ITS
MOTIONS FOR JUDGMENT AS A MATTER OF LAW AND MOTIONS FOR
A NEW TRIAL FOR U.S. PATENT NOS. 7,570,686 AND 8,462,835**

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*Unless otherwise noted, all emphases herein have been added. Internal citations and quotations have been generally omitted.

I. COMBINING FI-071 AND G.992.1 DOES NOT RESULT IN THE CLAIMED INVENTION OF CLAIM 36 OF THE 686 PATENT

CommScope argues that it did provide a motivation to combine, stating, “Dr. Cimini testified that the AT&T Contribution, itself, indicates that it should be combined with ADSL [G.992.1].” Dkt. 546 at p. 2. Dr. Cimini testified that FI-071 is “a suggested improvement to the existing [G.992.1] standard” and that FI-071 “propose[s] adding diagnostic information to G.992.1. . . and in particular it wants to add quiet line power spectral density measurement, which is PSD, and a line balance measurement.” Dkt. 532 (3/22/23 Tr.) at 160:12-23. But CommScope’s argument completely misses the point. Simply “add[ing] quiet line power spectral density measurement” from FI-071 to G.992.1 does not result in the claimed invention or render it obvious. Claim 36 requires “transmit[ting] from the transceiver a diagnostic message using multicarrier modulation with DMT symbols that are mapped to one bit of the diagnostic message.” Neither FI-071 nor G.992.1 discloses using this modulation scheme for transmitting diagnostic messages. Rather, as Dr. Cimini admitted, G.992.1 already used a different way to transmit diagnostic messages, the embedded operations channel (“EOC”) (*id.* at 193:16-22), and “[t]he embedded operations channel of G.992.1 does not use a modulation scheme in which DMT symbols are mapped to one bit” (*id.* at 194:17-20). If a POSITA were to add the quiet line noise of FI-071 to the diagnostic messages of G.992.1, as suggested in FI-071, then the natural result is a system that continues to use the EOC scheme already available in G.992.1. Dr. Cimini did not describe any reason that a POSITA would have modified the resulting combination to instead use a completely different modulation scheme to replace the EOC. Accordingly, the combination that would result from the only “motivation” evidence CommScope identified would not result in the claimed invention and there would have been no reasonable expectation of success.

It is insufficient to show that a POSITA would have been motivated to add FI-071’s quiet

line noise to G.992.1's diagnostic messages but then mix and match with a different modulation scheme found in an unrelated portion of G.992.1. But that's what CommScope attempts to do by pointing to the C-RATES modulation scheme of G.992.1 without identifying any record evidence showing a motivation to change G.992.1's EOC so that it uses the C-RATES modulation scheme. To the contrary, a POSITA would have had no reason to use the C-RATES modulation scheme to transmit the quiet line information of FI-071 or any other diagnostic message because (1) C-RATES is a scheme used for initialization and not to transmit diagnostic messages, as conceded by Dr. Cimini (*id.* at 194:21-195:2) and (2) G.992.1 already provided a messaging scheme for transmitting diagnostic information – the EOC. CommScope did not elicit at trial, and has not identified in its responsive brief, any evidence that a POSITA – at the time of the invention and without the hindsight gained from the 686 Patent itself – would have considered the EOC to be deficient or that the transmission of diagnostic messages would be improved by changing the EOC to instead use a C-RATES modulation scheme. In fact, Dr. Cimini admitted that nothing in G.992.1 suggests that the EOC is inadequate for transmitting diagnostic messages. *Id.* at 195:4-19. CommScope did not provide legally sufficient evidence from which a reasonable jury could have concluded that a POSITA would have been motivated to modify G.992.1 to use the C-RATES messaging scheme to transmit the diagnostic message suggested by FI-071. *In re Van Os*, 844 F.3d 1359, 1361–62 (Fed. Cir. 2017) (“a conclusory assertion with no explanation is inadequate to support a finding that there would have been a motivation to combine” because “[t]his type of finding, without more, tracks the ex post reasoning KSR warned of and fails to identify any actual reason why a skilled artisan would have combined the elements in the manner claimed.”).

Lacking evidence *from the prior art or knowledge of a POSITA* of a motivation to combine, CommScope states that “the disclosure of the 686 patent itself told a POSITA to use the C-RATES

messaging scheme in conveying a diagnostic message.” Dkt. 546 at p. 6. But the law is clear that you cannot “use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art – i.e., the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.” *TQ Delta, LLC v. CISCO Systems, Inc.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019). Ultimately, CommScope fails “to resist the temptation to read into the prior art the teachings of the invention in issue.” *Id.* at 1362. Likewise, CommScope’s heavy reliance on Robert Pizzano’s inventor testimony is unavailing. CommScope’s assertion that Mr. Pizzano “testified to the jury that the inventors intended for the C-RATES message scheme, as described in ADSL (G.992.1) and the 686 patent, to be used to send the diagnostic message described in the 686 patent” does not support a finding of obviousness here. Using a one bit per DMT symbol modulation scheme to transmit diagnostic information is part of Mr. Pizzano’s invention, *i.e.*, it is claimed in the 686 Patent. That specific combination – using one bit per DMT symbol to communicate diagnostic information – was nowhere to be found in the prior art. As CommScope’s expert agrees, FI-071 did not describe the use of a one bit per DMT messaging scheme for transmitting diagnostic information and neither did G.992.1. *See* 3/22/23 Tr. at 193:16-22; 194:17-20; 194:25-195:2. CommScope’s attempt to rely on the 686 Patent’s and the inventor’s descriptions of the invention to support its invalidity theory shows that the prior art and other record evidence do not.

II. COMMSCOPE FAILED TO DEMONSTRATE THAT THE PRIOR ART INCLUDES A “TRANSCIVER”

CommScope was required to show that the prior art includes every element of the asserted claims, as construed by the Court. CommScope did not meet that burden at least for the recited “transceiver.”¹ CommScope does not dispute that neither of its experts discussed the construction

¹ The *Genband* case cited by CommScope doesn’t support its position. In *Genband*, the Plaintiff pointed to specific evidence in the trial record where its 30(b)(6) witness provided testimony that

of “transceiver” and could not point to any testimony that the prior art includes a “communications device capable of transmitting and receiving data *where the transmitter portion and receiver portion share at least some common circuitry*.” Dkt. 169 at p. 15 (emphasis added). In fact, neither Dr. Cimini nor Mr. McNair discussed shared or common circuitry at all in any context.

With respect to the 686 Patent, CommScope asserts that “Dr. Cimini testified that the AT&T contribution discloses diagnostic information at both ends of the line, and it’s communicated over the loop” (Dkt. 546 at p. 7) and then goes on to cite to a portion of the AT&T contribution (i.e., FI-071) that states “[t]here are occasions where diagnostic tests are performed from either end of the subscriber line.” *Id.* at p. 8. But neither Dr. Cimini’s statement nor that portion of FI-071 discusses shared or common circuitry, and CommScope does not explain how it does. It appears possible that CommScope does not understand the Court’s construction. The Court’s construction of “transceiver” refers to the transmitting and receiving of data within a single communications device; i.e., the shared circuitry between the transmitter portion and receiver portion is common circuitry in the same device. It is unclear how two devices, each found in a different location, could have, or share, common circuitry. CommScope appears to think that the Court’s construction refers to transmitting by one device on one end of the line and receiving by a different device on the other end of the line. This is evidenced by CommScope’s reliance on G.992.1 (the ADSL standard) where it highlights “[t]ransceivers on a metallic twisted pair that allows high-speed data transmission between the network operator end (ATU-C) and the customer end (ATU-R)” (Dkt. 546 at p. 8) and then argues that “[s]uch disclosure makes it clear that the

the pertinent claim term was satisfied by the accused products and to expert testimony explaining why the testimony of the 30(b)(6) witness established that the claim term was met. *See Genband U.S. LLC v. Metaswitch Networks Ltd.*, No. 2:14-cv-33-JRG, 2016 U.S. Dist. LEXIS 134652, at *36 (E.D. Tex. Sept. 29, 2016). In this case, CommScope does not point to anything in the trial record that establishes that the prior art includes a “transceiver” as that term has been construed.

transceiver shares at least some common circuitry to convey information from one end of the line (“ATU-C receiver”) to the other (“ATUR”). But the claimed “transceiver” is not the combination of the ATU-C and the ATU-R at different ends of the telephone line and the “shared circuitry” is not the metallic twisted pair that runs between the two ends. Notably, neither of CommScope’s experts testified that the portions of the prior art CommScope now relies on show that the prior art disclosed a “transceiver” as that term was construed by the Court.

With respect to the 835 Patent, CommScope asserts that “Mr. McNair also testified that the prior art itself, in particular the ADSL [G.992.1] standard document, includes ATUs, which are ‘ADSL transceiver units,’ and he agreed that there is ‘[n]o question that ADSL talks about transceivers that have processors.’” Dkt. 546 at p. 9. But the fact that the prior art uses the word “transceiver” and “talks about transceivers that have processors” tells us nothing about whether the prior art includes a “transceiver” as it was construed by the Court.

CommScope’s assertion that TQD did not contest that the prior art includes a “transceiver” is irrelevant. TQD could not have known that CommScope would fail in its burden of proof until the evidence closed. It was not TQD’s job to forecast that failure.

Finally, the fact that the Court’s claim constructions were available in the juror notebooks does not excuse CommScope’s deficient presentation. It is not for the jury to decipher whether the prior art discloses the claims as they have been construed; that was CommScope’s burden.

III. CONCLUSION

TQD respectfully requests that the Court enter JMOL of no invalidity of claim 36 of the 686 Patent and no invalidity of claim 10 of the 835 Patent and that the Court set a date for a new trial to determine damages for CommScope’s infringement of the 686 Patent and 835 Patent.

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document and all attachments thereto are being filed electronically in compliance with Local Rule CV-5(a). As such, this document is being served this June 21, 2023 on all counsel of record, each of whom is deemed to have consented to electronic service. L.R. CV-5(a)(3)(A).

/s/ **Peter J. McAndrews**
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